Holotype, female, No. 4793, Cal. Acad. Sci., Ent., June, 1927, Sacaton, Arizona. Paratypes, two females, June, 1927, Sacaton, Arizona, in the author's collection.

This species keys to *P. flammigera* Mickel in his key in "The revision of Mutillid Wasps," Proceedings of the United States National Museum, Volume 64, Art. 15, p. 6, but has the following differences according to Mickel's description: the size of the insect and the posterior face of the propodeum sparsely punctured with large separate punctures amongst which are finer punctures, less so caudad; the median seven-eighths of the apex of the second tergite with a narrow band of black recumbent pubescence, the remaining space on either side of the apex with recumbent silvery pubescence merging into the silvery pubescence of the sides; tergites three to five closely punctate with each entire apical margin with a recumbent band of silvery pubescence as well as black, sparse, erect hairs making an erect fringe along the cephalic margin of each silvery band.

## THE MANDIBLES OF OMUS DEJEANI RCHE. AS SECONDARY SEXUAL ORGANS

(Coleoptera, Cicindelidæ)

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On May 2, 1938, while collecting on Whidby Island, Washington, I discovered two *Omus* (*Megomus*) dejeani Reiche under a piece of wood, mating. The male was on the back of the female, clasping her with his powerful, well developed jaws in the constriction between the pronotum and the elytra. Only the posterior pair of legs of the male were resting on the ground. This is also true in the case of *Tetracha carolina* (L.) and has been described in several species of *Cicindela*.<sup>1</sup>

These two *Omus dejeani* were first discovered, in the act of mating, at 5:49 p. m. They were placed in a covered box and were found, still attached to each other, at 10:02 a. m. on May 3. They readily separated when disturbed at that time, but at 9:57 p. m. the previous evening, after four hours and eight minutes of observed mating, the male did not attempt to change his posi-

<sup>&</sup>lt;sup>1</sup> Balduf, Walter Valentine, The Bionomics of Entomophagus Coleoptera, John S. Swift Co., Inc., p. 5, 1935.

tion when the female was turned over for an instant, placing the male on his back with the female on top of him. The female, when disturbed, would seek shelter, carrying the male with apparently no inconvenience. I do not know how long the pair had been mating when first found or how long they would have remained in that state if undisturbed, but the total observed period of mating was sixteen hours and thirteen minutes. The position of the jaws of the male *Omus dejeani* was not observed at 10:02 a. m. on May 3. They may or may not have been clasping the female at that time. Further research along this line would be interesting.

## NOTE ON SILPHA (THANATOPHILUS) COLORADENSIS WICKHAM

Silpha coloradensis was described by Wickham (Can. Ent., XXXIV, p. 180, 1902), from a single male from Argentine Pass, near Georgetown, Colorado, at an elevation of over 12,000 feet. He later (Bull. Lab. Nat. Hist. St. Univ. Iowa, V, p. 274, 1902), reported a second specimen from Gunnison, Colorado, and there are a male and female in the Hatch collection from Manitou in the same state. Portevin, misinterpreting the original description (Portevin, Encycl. Ent., VI, p. 43, 1926; Hatch, Jour. N. Y. Ent. Soc., XXXV, p. 346, 1927 and Col. Cat. 95, p. 85, 1928), redescribed the species as obalskii (Portevin, Bull. Mus. Hist. Nat. Paris, p. 507, 1920; Encycl. Ent. VI, p. 50, fig. 45, 1926), on the basis of a series of specimens from British Columbia.

In view of the rarity of the species and the absence of any information on its habits, it is here noted that Frances Bjorkman took a series of six specimens at Independence Pass, Colorado, at an altitude of more than 12,100 feet in a can of old coffee grounds on July 9, 1938 and a second series of four specimens at Spring Creek Pass, Colorado, at an altitude of more than 11,000 feet in a sheep carcass on July 19, 1938. On both occasions coloradensis was associated with individuals of Silpha (Thanatophilus) lapponica Herbst, a widely distributed carrion-inhabiting species. Specimens have been placed in the Hatch collection at the University of Washington.—Frances Bjorkman and Melville H. Hatch, Department of Zoology, University of Washington.